



UNIVERSITY of HAWAII®
WINDWARD
COMMUNITY COLLEGE

CHEM 100, Chemistry and Society
3 Credits, CRN 64013 (Asynchronous)

INSTRUCTOR: Dr. Jeff Romine
OFFICE: 321A Bilger, Manoa
OFFICE HOURS (Monday and Wednesday 1:30 – 2:45 PM)
EMAIL: rominej@hawaii.edu
EFFECTIVE DATE: Spring Jan 9th – May 12th 2023

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai‘i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko‘olau region of O‘ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Chemistry 100 offers an introduction to basic concepts and applications of chemistry in the real world. This course is suitable for students who have little background in chemistry and fulfills a general education physical science core course for the non-science major.

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

1. Understand the properties and structure of matter.
2. Identify basic chemical classes, balance simple chemical reactions and nuclear equations.
3. Understand the chemistry of household chemicals and the biomolecules.
4. Identify the types of chemical reactions (acid-base, redox, nuclear).
5. Become familiar with environmental, industrial, and/or chemical technologies.
6. Solve problems involving equations.

COURSE TASKS

- Students will view course lectures.
- Students will complete weekly homework assignments.
- Students will take 3 exams.

LECTURES

This is an online-asynchronous course. Students will receive a link to view recorded lectures twice weekly (Tuesday and Thursday) via email. Lecture slides will be posted on the Laulima Resources page, allowing to students follow along. Exams and homework will be performed on Norton's online platform called Smartworks, which students can purchase through IDAP.

LEARNING RESOURCES

Norton Smartworks (through IDAP). **Ebook:** Chemistry: The Science in Context 6th ed. (Gilbert, Kriss, Bretz, Foster) W.W. Norton: 978-0-393-69733-9 (free with Smartworks)

EXAM FORMAT

Timed exams will be administered on the Smartworks system according to the dates listed below. Exams are open book, open notes.

Exam 1 (100 pts) Tuesday, Feb 14, Lectures 1 – 9.

Exam 2 (100 pts) Thursday, March 30, Lectures 10 – 18.

Exam 3 (100 pts) Tuesday, May 9th, Lectures 19 – 27.

ASSESSMENT

Homework.....	200 points 40%
Exam 1.....	100 points 20%
Exam 2.....	100 points 20%
Exam 3.....	100 points 20%
Total -----	500 points 100%

GRADING

Course grade: Based on percentage of total points as follows:

(90-100% of cumulative total) = A

(80-89% of cumulative total) = B

(70-79% of cumulative total) = C

(60-70% of cumulative total) = D

HOMEWORK AND LEARNING TIPS

The lecture material constitutes the course. The textbook is merely a backup resource for students seeking a deeper understanding. There are no reading assignments. I will post the lectures slides at the time I send out links to lectures. My suggestion is to print them and write your notes directly on the slides. By carefully listening to lectures students glean a first exposure to the material. The lecture is then augmented by homework assignments. There is no substitute for problem solving, which is indispensable to learning chemistry. Students are permitted unlimited attempts when submitting answers to homework problems.

DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, royinouy@hawaii.edu, or you may stop by Hale Kāko‘o 106 for more information.

TITLE IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, WCC has resources to support you. To speak with someone confidentially, contact the Mental Health & Wellness Office at 808-235- 7393 or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator, Karla K. Silva-Park, at 808-235-7468 or karlas@hawaii.edu.

ACADEMIC INTEGRITY

Students are expected to meet academic standards, conducting themselves maturely and respecting the academic community at UH. Academic Honesty Policy can be found at: [UH Systemwide Policies and Procedures Information System \(PPIS\) - \(hawaii.edu\)](#)

Students who demonstrate academic dishonesty, cheating on homework or exams, will have the following consequence(s):

Students will receive a failing grade.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

COURSE CONTENT

Date	Lectures	Topics covered
1/9 - 2/13	1 – 9	Matter (atoms, molecules; states); periodic table; scientific notation; significant figures; atomic structure; molar mass; balancing reactions, stoichiometry; electron configuration; ionic bonds.
2/16 - 3/30	10 – 18	Covalent bonds; Lewis structures; octet rule; atomic radii, Organic molecules; polymers, glues; biomolecules
4/4 – 5/12	19 - 27	Acid and base chemistry solutions, thermochemistry; electrochemistry; nuclear chemistry (radioactivity) and house hold chemicals.